

**WHAT IS CLAIMED IS:**

1        1. An apparatus for use in managing the cost of a business process, comprising:  
2            means for receiving a discontinuous cost function that describes the costs associated  
3            with the business process as a function of one or more operational parameters;  
4            means for finding the minimum cost point of the cost function, including  
5                means for dividing the cost function into continuous sections,  
6                means for calculating the point of minimum cost for each section, and  
7                means for selecting the point of minimum cost having the lowest value; and  
8                means for applying to the business process the operational parameters corresponding  
9            to the selected point of minimum cost.

1        2. The apparatus of claim 1, wherein means for calculating comprises:  
2            means for choosing a plurality of control points for each section; and  
3            means for generating one or more approximations for each section based on the  
4            control points in that section.

1        3. The apparatus of claim 2, wherein means for generating comprises:  
2            means for selecting sets of the control points; and  
3            means for generating one of the one or more approximations for each set of control  
4            points.

1        4. The apparatus of claim 3, wherein means for calculating the point of  
2            minimum cost for each approximation comprises:  
3                means for finding a point of zero slope on the approximation.

1        5. The apparatus of claim 4, wherein means for generating one of the one or  
2            more approximations comprises:  
3                means for calculating an interpolation function based on the control points.

1        6. A method for use in managing the cost of a business process, comprising:

2 receiving a discontinuous cost function that describes the costs associated with the  
3 business process as a function of one or more operational parameters;  
4 finding the minimum cost point of the cost function, including  
5 dividing the cost function into continuous sections,  
6 calculating the point of minimum cost for each section, and  
7 selecting the point of minimum cost having the lowest value; and  
8 applying to the business process the operational parameters corresponding to the  
9 selected point of minimum cost.

1 7. The method of claim 6, wherein calculating comprises:  
2 choosing a plurality of control points for each section; and  
3 generating one or more approximations for each section based on the control points in  
4 that section.

1 8. The method of claim 7, wherein generating comprises:  
2 selecting sets of the control points; and  
3 generating one of the one or more approximations for each set of control points.

1 9. The method of claim 8, wherein calculating the point of minimum cost for  
2 each approximation comprises:  
3 finding a point of zero slope on the approximation.

1 10. The method of claim 9, wherein generating one of the one or more  
2 approximations comprises:  
3 calculating an interpolation function based on the control points.

1 11. A computer program product, tangibly stored on a computer-readable  
2 medium, for use in managing the cost of a business process, comprising instructions operable  
3 to cause a programmable processor to:  
4 receive a discontinuous cost function that describes the costs associated with the  
5 business process as a function of one or more operational parameters;  
6 find the minimum cost point of the cost function, including

7           divide the cost function into continuous sections,  
8           calculate the point of minimum cost for each section, and  
9           select the point of minimum cost having the lowest value; and  
10          apply to the business process the operational parameters corresponding to the selected  
11         point of minimum cost.

1           12. The computer program product of claim 11, wherein instructions operable to  
2         cause a programmable processor to calculate comprise instructions operable to cause a  
3         programmable processor to:  
4              choosing a plurality of control points for each section; and  
5              generating one or more approximations for each section based on the control points in  
6         that section.

1           13. The computer program product of claim 12, wherein instructions operable to  
2         cause a programmable processor to generating comprise instructions operable to cause a  
3         programmable processor to:  
4              select sets of the control points; and  
5              generate one of the one or more approximations for each set of control points.

1           14. The computer program product of claim 13, wherein instructions operable to  
2         cause a programmable processor to calculate the point of minimum cost for each  
3         approximation comprise instructions operable to cause a programmable processor to:  
4              find a point of zero slope on the approximation.

1           15. The computer program product of claim 14, wherein instructions operable to  
2         cause a programmable processor to generate one of the one or more approximations comprise  
3         instructions operable to cause a programmable processor to:  
4              calculate an interpolation function based on the control points.